Intonation as currently presented in North American textbooks bears a strong resemblance to textbook treatments from 30–50 years ago despite tremendous advances in both theoretical and applied research on intonational description and the role of intonation in communication. This article reviews current intonational research that is relevant to teaching and presents implications for pedagogy. It then argues that there are two primary reasons for a lack of innovation in intonation teaching materials. First, current materials are based on an inadequate view of the functions of intonation, especially in their overemphasis on its role in signaling grammatical relations and in their emphasis on its role in conveying speakers’ attitudes and emotions. Second, materials lack a communicative purpose, focusing instead on uncontextualized, sentence-level practice of intonational forms. Four principles for intonation teaching materials—namely, (a) that intonation must be taught in context, (b) that intonational meanings must be generalizable, (c) that the teaching of intonation must always be subordinate to larger communicative purposes, and (d) that intonation should be taught with realistic language—are discussed and contrasted with current practice.

The title of this article is borrowed from Allen (1971), who offered a still relevant, surprisingly forward-looking assessment of how intonation should be addressed in English language teaching. Since her article was written, language teaching has changed tremendously, moving from an era in which audiolingual and early cognitive approaches dominated to one in which communicative approaches to language teaching are used in every kind of teaching context. The theoretical understanding of intonation has also changed significantly, and the dominant model of intonation in 1971 (Pike, 1945) is used now only in pedagogical materials. Present intonational research is almost completely divorced from modern language teaching and is rarely reflected in teaching materials, which continue to rely on outdated and inaccurate descriptions of intonational forms and functions.

*This paper is a revised version of chapter 6 of Levis (1996), on low-rising intonation.*
Since 1971, teacher resource books and published articles have addressed many important issues about English intonation. Dalton and Seidlhofer (1994) survey applied findings about intonation in the British tradition, focusing especially on how speakers and listeners use intonation to manage discourse. Celce-Murcia, Brinton, and Goodwin (1996) summarize what is known about intonation in the North American tradition, with abundant descriptions, exercises, and explanations. Elsewhere, Gilbert (1987, 1994), drawing on the theoretical work of Bolinger (1986, 1989) and British applied linguists such as Brazil (1985), has argued for the replacement of traditional approaches to teaching intonation, especially sentence stress or focus. In British textbooks, the work of Brazil (1985, 1994), Bradford (1988), and others has suggested ways to systematically address discourse intonation in the classroom.

Despite the abundance of current research and varied practical recommendations for teaching the communicative role of intonation in language, published materials for teaching intonation, with few exceptions, closely resemble both each other and materials published before the advent of communicative language teaching. This monotony indicates that a reassessment of the place of intonation in the North American tradition is due. Rather than simply offering a change in techniques, this article both addresses relevant research and discusses fundamental issues that seem to be affecting textbook treatments of intonation. After defining intonation, I present findings from current intonational research and their implications for teaching. Next, I examine some of the fundamental difficulties with how intonation is presented in North American textbooks, especially in how materials describe the functions of intonation and in the materials’ lack of communicative purpose. Finally, I offer principles for teaching intonation, comparing common practice and potential changes.

DEFINITIONS OF INTONATION

At least two definitions of intonation are current in English language teaching. In what can be called the broad definition, Allen (1971) says that intonation is a quality of language that includes both rhythm and melody and is “produced by tonal height and depth along with stress, volume and varying lengths of pause” (p. 74). In this definition, intonation means something like prosody or suprasegmentals. The broad view of intonation is widespread, as intonation is often used to refer to the way someone says something. In English, the way something is said includes not only pitch movement but also length, intensity, and a host of other factors, such as voice quality.

A second, more narrow, definition of intonation restricts its meaning
to significant, linguistic uses of pitch. Ladd (1996) defines intonation as one of the “suprasegmental features [of language] to convey . . . sentence level pragmatic meanings in a linguistically structured way” (p. 6). Intonation in this definition involves the uses of pitch that operate at the discourse level and can be defined in terms of distinct linguistic categories (e.g., syllables that are accented vs. those that are not accented, rising vs. falling final pitch).

The narrow definition is followed in this article, and discussion is restricted to two important elements of intonation represented in almost all textbooks: (a) the primary accent or sentence stress1 and (b) final pitch movement in a phrase or sentence. The first phenomenon is represented by the accent on the word see in Example 1, in which the verb is more noticeable, or salient, than all other words in the sentence. Sentence stress can change when the context changes, either in words, as in Example 2, or through an understood situation. I call this use of intonation nuclear stress and represent it in capital letters. The second intonational phenomenon is what I call the final intonation, or intonation, of a sentence. In Example 3, this is shown as falling pitch (or rising-falling pitch, as it is sometimes called),2 in which the pitch rises at the accented syllable before falling to a relatively low pitch. In addition to falling final intonation, sentences may have a final pitch movement that is rising, falling-rising, or one of several other patterns, depending on the context and the speaker’s intentions.

1. What did you SEE?

2. [talking to a friend] I saw the tigers at the zoo. What did YOU see?

3. What did you SEE? [compare: What did YOU see?]

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1 The accented syllable in a phrase in English is known by many different names. Examples are focus (Gilbert, 1993; Grant, 1993), emphasis (Smith, Meyers, & Burkhalter, 1992), prominence (Dalton & Seidlhofer, 1994), sentence stress (Dauer, 1993), major sentence stress (Avery & Ehrlich, 1992), phrase stress (Chan, 1987), primary phrase stress (Dickerson, 1989a), and main stress or tonic accent (Pennington, 1996).

2 The term rising-falling has been used to refer to two different kinds of intonation. The first refers to an abrupt step up in pitch at the nuclear stress, which is called falling elsewhere. Rising-falling is also used for a contour that slides up rather than steps up to the accented syllable before falling. According to Dauer (1993), “the pitch on the stressed syllable is begun mid to high but keeps rising to high or extra high and then falls later (it glides up on rather than jumping up to the stressed syllable)” (p. 235). Brazil (1985) refers to this as the p± tone, which he believes is used primarily by dominant speakers in an interaction. This final intonation is not usually taught in North American textbooks. Some British applied linguists also do not consider it essential for foreign learners to acquire (Dalton & Seidlhofer, 1994).
WHAT INTONATIONAL RESEARCH REVEALS

This section examines six findings about intonation that are relevant to teaching. These findings involve (a) the placement of significant pitch in an intonational phrase, (b) pitch levels, (c) listeners’ perceptions of intonation, (d) intonation patterns, (e) the use of high and low pitch for nuclear stress, and (f) the placement of nuclear stress.

Significant Pitch

A fundamental concept in intonational phonology is that, although every voiced sound in an utterance inherently carries pitch information, not all syllables are associated with pitch in a significant way. This concept fits with the intuition that only certain syllables stand out in a given phrase, and most researchers and many textbooks assume its truth. In contrast, in a notion that goes back to Pike (1945), some communicatively oriented North American pronunciation textbooks continue to suggest that pitch is important on every stressed syllable, as in the following example.

I was a STU dent at SOUTH ern TECH. (Grant, 1993, p. 120; see also Chan, 1987, p. 135)

When each stressed syllable carries significant pitch, the learning burden is large. In contrast, when phrases have only one or two accented syllables, learners can focus on highlighting certain syllables, and the other syllables can be backgrounded because they do not have significant pitch.

Pitch Levels

A second research finding that has important implications for teaching is that an adequate description of intonation is simpler than has usually been portrayed, requiring only high and low pitch rather than three, four, or five levels. In other words, listeners notice primarily whether pitch changes more than they notice the actual amount of the change (Dickerson, 1989a). Pitch contrasts in English are local, that is, pitches are high and low only relative to adjoining pitches rather than to an unmoving, absolute pitch (Pierrehumbert, 1980). Despite the ways in which intonation can be compared to music, pitches in intonation are not set on a scale with an absolute reference point.

In pedagogical treatments of American English intonation, three and
four pitch levels are almost standard. Celce-Murcia et al. (1996, pp. 186ff), in their recent comprehensive treatment of pronunciation theory and practice, use a four-pitch system (Levels 1–4) and reference contours in the traditional way, as a series of three pitches (e.g., 2-3-1), as in Example 4.

4. Declarative Statements

2-3-1

3

2 John’s SICK. [glide]

1

3

2 He’s taken an ASpirin. [step]

1

This approach to teaching also may employ a comparison to a musical staff, as in the example from Chan (1985).

Are they friends? (Chan, 1987, p. 26)

Despite the appeal of the musical staff approach, at least for some contours the approach may be needlessly detailed. I have shown elsewhere, for example, that listeners do not distinguish changes in meaning between high-rising contours that begin at a high pitch and those that begin at a relatively low pitch (Levis, 1996). In other words, people listen for an overall pitch shape—in this case, a rise to high pitch—rather than for the phonetic detail of where the intonation contour begins. As a result, describing the overall shapes of final intonation (e.g., rising or falling) appears to be perfectly adequate for learners, as in the following example.

Do you work in an office? \[↑\] Pitch rises

Yes, I do. \[↓\] Pitch falls

(Gilbert, 1993, p. 103)

Listeners’ Perceptions of Intonation

A third important research finding is that listeners’ perceptions of intonation are usually different from the acoustic facts. As in other areas
of phonology, listeners hear intonation according to internal categories rather than according to phonetic reality. If students shared native English speakers’ categories, this would not be a problem. However, languages have different ways of organizing intonation patterns and intonational meanings, and these differences are likely to be a source of difficulty (Cruz-Ferreira, 1987).

One area in which perception and acoustic fact do not correspond is nuclear stress, which is typically described as being the most prominent syllable in the phrase, usually having the highest pitch. In reality, this is not always so. When an utterance has more than one accented syllable, the nuclear stress is frequently lower in pitch than the accented syllables that precede it because of the normal decline of voice pitch from the beginning to the end of an utterance. Listeners hear the nuclear stress as such because of the rhythmic patterns and information structure of English (Ladd, 1980; Liberman, 1978; Pierrehumbert, 1980) and because the nuclear stress is marked not only by pitch but by syllable length and other factors (Bolinger, 1986).

Teachers’ and students’ perceptions of intonational meaning are also likely to mismatch badly. Even among a group of native speakers, perceptions of intonational meaning are anything but unanimous (Crystal, 1969; Levis, 1996). There is even less overlap between native speakers’ intuitions and those of learners of English. Expecting learners to share native speakers’ perceptions of meaning is unreasonable. Textbook accounts telling learners that a certain intonation means that the speaker is, for example, rude, polite, or bored are based on perceptions that are at best language specific. Cruz-Ferreira (1987), in a study of Brazilian Portuguese and American English speakers’ perceptions of meaning, found that learners had no difficulty interpreting the meaning of intonation when the two languages used the same forms to convey the same meanings. When the same intonation patterns had different meanings in the two languages, listeners misinterpreted meanings consistently in comparisons with native speakers. And when no corresponding intonation pattern existed in the native language, listeners were random in their interpretations of meaning.

Intonation Patterns

A fourth area in which research can inform practice is the number of intonation patterns. Most current North American pronunciation textbooks present only 2 intonation patterns, rising and falling. Research on intonation has shown that many other patterns are also important in English. Ladd (1980) lists 5 generally agreed-on patterns but also describes others. Pierrehumbert (1980) describes a system of up to 24
possible patterns, most of which are thought to exist in English. Gussenhoven (1983) sees English as having three basic patterns, each of which could be modified in particular ways to produce other patterns that were distinct. I argue elsewhere that, in addition to a rising and falling contour, a contour that ends at a middle pitch is also essential (Levis, 1996).

At the very least, a third pattern, one that is unfinished, as on the word yes in Example 5, also seems important for learners. This unfinished pattern, which can be represented as a falling-rising intonation, has been depicted as a half-fall by some writers who include it as a significant pattern (Avery & Ehrlich, 1992; Dauer, 1993; Morley, 1992). Whereas falling intonation seems to be most common in declaratives that finish a person’s conversational turn, unfinished intonation is common when a speaker wishes to hold the floor or leave something unsaid. Thus, the unfinished intonation is frequently used for utterances before a speaker’s turn is finished.3

5. A: Ready?
   B: Yes . . . [i.e., but not completely]

The need for at least a third pattern is evident if intonation is seen as a communicative tool. Because one function of intonation in conversation is to communicate whether a speaker has finished a turn, falling-rising intonation is a key communicative resource for speakers. This pattern, which learners sometimes use for final statements, can also carry the pragmatic meaning of something left unsaid (Ladd, 1980), as in Example 6. A falling intonation communicates an assertion whereas the falling-rising pattern implies something left unsaid.

6. A: Do you want to come with us?
   B: I would [underline] like that . . . [i.e., but I can’t]

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3 Another kind of unfinished intonation that has increasingly been noted in a variety of speech communities has been labeled Upspeak (Bradford, 1996) for its chief characteristic, high-rising intonation in noninterrogatives. Bradford describes Upspeak as “a steep rise in pitch on the last word and a concomitant lengthening of the vowel in the accented syllable of the word and the vowels of any following syllables” (p. 22) and phonologically as a fall from the nuclear stress to the last word, followed by a quick rise at the end. She argues that Upspeak appears to serve two sociolinguistic purposes: to promote a sense of solidarity between speaker and listener and to help ensure continued listener participation (p. 23). Tench (1997) reports that the use of Upspeak appears to have increased significantly since the 1950s among adolescents in Australia, a finding he believes is mirrored in other parts of the English-speaking world.
Pitch Levels and Nuclear Stress

A fifth research finding that is relevant to teaching is the use of both high and low pitch for nuclear stress. Standard North American accounts of nuclear stress invariably prescribe a rise in pitch at the accented syllable, as in the following example.

\begin{verbatim}
high
medium
low
\end{verbatim}

\begin{verbatim}
stu
He’s a
dent.
\end{verbatim}

(Beisbier, 1995, p. 61)

Research has increasingly shown that English speakers also use nuclear stress that falls or remains almost constant in pitch, as in common pronunciations for Examples 7 and 8.

7. It’s not bad.
8. Is he leaving?

This finding about nuclear stress is not new. British accounts of intonation have always given a prominent place to intonation patterns, such as low-rising and low-falling, that accent syllables at a low pitch (Cruttenden, 1986; O’Connor & Arnold, 1963). In the North American tradition, Pike (1945) recognized a variety of low-rising patterns. Bolinger (1972, 1986) has long argued for the importance of accents that are low in pitch. Gunter (1974) wrote of a meaningful low-rising contour in American English. Ladd (1980) counted low-rising as one of the patterns generally agreed on by all intonation researchers.

Nevertheless, North American textbook accounts of intonation almost invariably associate nuclear stress with a rise in pitch. This prescriptive view of accent is due to a variety of factors, including the conservatism of textbook publishing, which favors more prescriptive models of intonation over the complexity of a descriptive approach to nuclear stress, as well as a deeply entrenched grammatical approach to intonation (Levis, 1997). Intonation starting at a relatively low pitch is recognized in textbooks only in list intonation and in specialized structures such as vocatives.

Recognizing the existence of nuclear stress with a low pitch should lead to at least two changes in textbook treatments of intonation. First, there would be a greater emphasis on the other markers of nuclear stress, especially syllable duration. Second, materials would explicitly teach low-pitched nuclear stress in structures such as yes-no questions.
Placement of Nuclear Stress

The final area in which research can inform teaching priorities involves the placement of nuclear stress. Although Halliday’s (1967) basic distinction between given and new information has become quite widespread in textbooks, a belief that speakers can accent any word depending on what they want to say is commonly reflected in rules given to students and implied by exercises in textbooks (Dauer, 1993; Grant, 1993; Hagen & Grogan, 1992; Handschuh & de Geigel, 1985; Orion, 1996).

The placement of nuclear stress, however, does not depend simply on given and new information. Nor is it dependent only on the speaker’s intentions (Brazil, 1984). Bardovi-Harlig (1986) addresses some of the pragmatic factors governing nuclear stress, and Cruttenden (1990) defines three systematic classes of exceptions to the given-new distinction, suggesting that nuclear stress seems particularly sensitive to word class, with nouns being more likely to be accented than verbs, adjectives, and adverbs. Dickerson (1989b) echoes this conclusion and presents additional structures, such as clauses with existential there (as in B’s response in the extract below), in which a simple given-new distinction does not sufficiently reflect nuclear stress. One would expect the nuclear stress to fall on area rather than tornado. Such a nuclear stress would be unusual, however. Instead, utterances with there is/there are appear to favor nuclear stress on the noun rather than on its following prepositional phrase, even when the phrase contains new information.

A: It sounds like there was some excitement last night.

B: Didn’t you hear? There was a tornado in the area.

(Dickerson, 1989b, p. 20)

Research provides guidance on common nuclear stress placements, such as final-time adverbials, that should be regularly included in textbook treatments. A neutral nuclear stress placement, with the accent on the preceding noun, is shown in Example 9. Accenting the final adverbial “is usually a marked intonation indicating some sort of contrast” (Cruttenden, 1990, p. 14), as in Example 10. Dickerson (1992), however, also points out that time adverbials seem to be accented and deaccented depending on whether they set a general time context (e.g., I saw Professor Jones today) or focus more specifically on time (e.g., I had a visitor at nine o’clock).

9. I had a good TIME yesterday. [neutral]

10. I had a good time YESterday. [in contrast to some other time]
PROBLEMS WITH CURRENT TEXTBOOK TREATMENTS OF INTONATION

Early textbooks, which were both linguistic and pedagogical, have created the understanding that most teachers have of intonation. In fact, North American treatments of intonation before Liberman (1978) were strongly pedagogical. Intonation was largely ignored in the change from structural to generative linguistics until the mid-1970s, when the study of tone languages created new interest in the subject. Since the 1970s, research into intonational form and function has increased enormously, but little of the resulting information is reflected in pedagogy. Thus, many of the basic assumptions about intonation in modern North American textbooks remain unchanged from those of 40–50 years ago.

Because underlying assumptions have not changed, many current textbook treatments of intonation are startlingly similar to each other in scope, in the kinds of exercises offered, and in descriptions of intonational meaning and function. Even more startling is that many current textbooks strongly resemble materials used 50 years ago, differing mostly in typesetting and page layout but not in content and philosophy.

Inaccurate Descriptions of Intonational Form

Although researchers have demonstrated that English intonation is likely to be made up of only high and low pitches, textbooks continue to use the four-pitch system made popular in the 1940s and 1950s.

There are basic patterns for English intonation. These patterns have four common pitch levels:

2 normal (where the voice most often is)
3 high (where the voice usually rises at the intonation focus)
1 low (where the voice falls to at the end of most types of sentences)
4 very high (the voice rises to show stronger emotions such as surprise, disbelief, fear, excitement) (Hagen & Grogan, 1992, p. 128)

Lado and Fries (1954), using reversed pitch numbers, say almost the same thing.

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4 Trager and Smith (1951) carried out extensive research on intonation, but their basic assumption did not differ appreciably from Pike’s.
Individual speakers of English vary considerably in the pitch intervals that they use, but the general pitch system of four levels remains very much the same. Pronounce pitch three with your ordinary basal tone; pitch two at your normal height for stressed syllables; pitch four at your normal utterance of unstressed syllables at the end of a statement.\(^5\) (p. 44)

Similarly, although researchers from Pike (1945) onward have seen English intonation as richer than two patterns would indicate, the dominant approach continues to emphasize only rising and falling intonation. One recent book says,

> English has two basic intonation patterns: *rising* and *falling*. “Is Mr. Jones in?” has rising intonation. The pitch of the voice goes up at the end of the utterance. The speaker is asking a question. “No, he’s not in” has falling intonation. The pitch of the voice goes down at the end of the utterance. The speaker is answering a question. (Orion, 1996, pp. 62–63)

Much earlier, Clarey and Dixson (1947, p. 15) imply that other patterns exist but say that rising and falling intonation are the only patterns necessary for a foreign learner.

**Inadequate Descriptions of the Function of Intonation**

Intonation is widely agreed to be fundamentally communicative and to be a basic part of communicative language teaching (Morley, 1998), but it is rarely represented this way in TESOL materials. Most North American textbooks fail in two primary areas: their characterization of the functions of intonation and their lack of a communicative focus. Rather than being minor failings, these two deficiencies have encouraged intonation materials that do “not seem to work very well” (Gilbert, 1994, p. 38). Final intonation is represented as having two primary functions in North American textbooks—reflecting grammatical structure and communicating affective meaning, such as a speaker’s attitudes or emotions. Both the grammatical and affective views of intonation are too limited in scope to be of great value, and both views hamper attempts to teach intonation as a powerful communicative tool.

**Inappropriate Linking of Intonation to Grammar**

Final intonation is widely represented in ESL textbooks as supporting grammatical structure, as in the following example.

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\(^5\) Lado and Fries (1954), following Pike (1945), used a four-pitch system in which 1 denoted the highest pitch and 4 the lowest. Later uses of the four-pitch system reversed the order (i.e., 4 denoted the highest pitch).
Rule. A statement ends with a falling pitch. A question may end with a rising or a falling pitch. The two most common types of questions in English are: Questions that ask for information with a question word (pitch falls). Questions that can be answered “Yes” or “No” (pitch rises). (Gilbert, 1993, p. 103)

Even textbooks that eventually give a more complete view start with this kind of rule (Dauer, 1993; Gilbert, 1993). Theorists almost universally agree that correlations between grammatical form and intonation are misleading and unhelpful in describing intonation. This is not because intonation does not have a grammatical function but because the grammatical connection is clear only in structures with a limited distribution, as in Examples 11 and 12, in which intonational differences mark a change in grammatical relations. The first example has what Bing (1985) calls an O-contour, a final intonation contour without a nuclear stress on Marcia. This intonation is usually associated with parenthetical utterances, forms of address, and narrative reporting phrases (such as she said after a line of dialogue in a story). In this utterance, it indicates that the speaker is speaking to someone labeled Marcia.

11. She’s my sister, Marcia.

In Example 12, Marcia receives a nuclear stress, referring to the sister, whose name is Marcia. The change in intonation reflects a change in grammatical structure.

12. She’s my sister, Marcia.

Although intonation can correspond to grammatical form, as these examples show, the relationship between grammatical structures and intonation is much more complex in most other structures, such as declaratives, yes-no questions, and wh- questions. Intonation and grammatical structure each convey meaning independently, thus allowing speakers to manipulate both form and intonation to communicate.

In one example, yes-no questions typically are said to have rising intonation. However, researchers have consistently shown that such questions have falling intonation approximately half the time in a variety of contexts (Cruttenden, 1986; Fries, 1964; Lee, 1980; Thompson, 1995). The differences between rising and falling intonation seem to be a function of the pragmatic intent of the utterance rather than of the grammar (Pierrehumbert, 1980). In particular, falling intonation appears to signal conducive questions, those which speakers believe they know the answer to (Thompson, 1995). Such clear variation, however, is not represented in textbooks.
To take another example, statements and *wh*-questions are commonly said to have falling intonation (Dauer, 1993; Gilbert, 1993; Grant, 1993; Hagen & Grogan, 1992; Orion, 1996). However, as many textbooks admit, statements and *wh*-questions clearly take both rising and falling intonation patterns, each of which carries a different meaning. But initially tying intonation and grammar together implicitly tells teachers and students that certain patterns are normal and that others are relatively unimportant.

In reality, neither falling nor rising intonation can be said to be normal, as they serve complementary functions that make each normal in particular conversational contexts. The choice of contour depends not on grammar but on the use of the utterance. For *wh*-questions, rising intonation is normal if the function is to ask for repetition of information. For statements, rising intonation is normal to indicate that a question of sorts, as opposed to an assertion, is being presented. Even here, though, blanket statements may run into trouble. Brown, Currie, and Kenworthy (1980) found in a corpus of Edinburgh Scottish English speech that statement questions were asked with falling intonation. This indicates that judgments of question versus statement are likely based on variables besides grammatical structure or intonation.

Linking intonation and grammar is understandable. From a researcher’s point of view, the connection may be the only way to carry out cross-linguistic comparison (Cruttenden, 1986). But for pedagogy, the link need not be inevitable. Indeed, British textbooks almost never represent intonation as functioning in relation to grammatical form. Even North American textbooks feature a more complex interaction of intonation, grammar, and function in tag questions. Although the treatment of tag questions usually does not address the complexity of the structure (Bouton, 1981), there is an evenhanded presentation of the fact that the structure occurs with different intonation contours. Perhaps because of the obvious difference in meaning, neither intonation is said to be normal, and each is allowed to have its own role.

A similar treatment is possible for other structures. For English, the comparison of falling and rising intonation is invariably tied to different grammatical structures. I propose carrying out the comparison for the same grammatical structures and giving attention to the communicative use of the utterances with the different intonations. The change, for statements, would look something like that given in Example 13.

13. Statements in English may be spoken with either rising or falling pitch. Falling pitch indicates that you feel confident about the statement whereas rising pitch communicates uncertainty about what you are saying. Statements with rising pitch are sometimes called *statement questions* because the rising pitch sounds like you are asking a question.
An Overemphasis on Affective Meaning

The role of intonation in affective meaning is also inadequately described in textbooks. Pike (1945), the foremost spokesman for this view, says that “in English . . . an INTONATION MEANING modifies the lexical meaning of a sentence by adding to it the SPEAKER’S ATTITUDE toward the contents of that sentence” (pp. 21–22). Modern textbooks frequently follow this lead. Orion (1996) says that “different pitches help us express our feelings: happiness, sadness, curiosity, surprise, annoyance, anger, and so on” (p. 62). Dale and Poms (1994) say that intonation “will also indicate if the person is confident, doubtful, shy, annoyed, or impatient” (p. 247). Grant (1993) tells students that “some intonation patterns express attitudes and emotions like anger, doubt, irony and sarcasm” and then adds, rightly, that “these patterns are variable and difficult to learn” (p. 135).

Like textbook pronouncements about the grammatical function of intonation, statements about affective meaning and intonation are neither very helpful nor accurate. Ladd (1980) convincingly shows that the attitudinal function of intonation assumed by Pike (1945) is served by more than intonation. In research carried out using adjectives to measure affective meaning, Levis (1996) found that judgments of affect were strongly constrained by the grammar, vocabulary, and communicative context. Judgments of affect were rarely consistent even within the same kind of grammatical structures, so that one yes-no question did not result in affective choices consistent with other yes-no questions. Crystal (1969) found that subjects who read sentences to express certain attitudes or emotions could not consistently identify the meanings later and described the meaning communicated by the sentences spoken earlier with many adjectives that were different from those originally included.

But the inaccuracies of the affective meaning approach are not its greatest failing. For students, and for nonnative teachers, such comments promise help that they cannot give. Students do not have native speakers’ intuitions about meaning, usually do not have ready access to the cultural norms that allow a native-speaking teacher to make these judgments, and have little possibility of generalizing such appeals to affective meaning. Such a gap exists even for highly advanced learners (Coppetiers, 1987). Problems are likely to occur even among different English-speaking communities. On one occasion, while discussing restaurants, a British linguist told me that he had ordered breakfast once from a U.S. waitress and used an intonation that for him was very polite. However, the request was clearly perceived as rude. After suffering a similar difficulty another time, he identified the problem as the use of an unexpected falling-rising intonation when North American speakers...
would be more likely to use a falling intonation. Describing another use of unexpected intonation, Gumperz (1984) reports that Pakistani and Indian women who used falling rather than rising intonation to offer food were perceived as rude by British airline employees.

The difficulty with attributing attitude to intonation is addressed by McLemore (1991), in describing judgments of affect for sorority speech. McLemore contends that describing speakers’ attitudes adequately involves understanding the contribution that intonation makes to interaction along with the many other important characteristics of the speech situation. Cauldwell (1997) even argues that attitudes do not reside in the intonation at all but in the conversational context. To be specific about affective judgments requires a fully developed theory of pragmatics that specifies the role of other factors as well as of intonation. With the best of intentions, textbook writers or teachers tell students that intonation contours carry a particular affective meaning, and teachers may believe that the meaning is quite accurate. This does not make the statements any more helpful. At best, such judgments might be valuable for the same utterance in the same or a very similar context, a situation that rarely occurs except in certain fixed, functional routines such as greetings.

A Missing Communicative Focus

While focusing primarily on the grammatical and affective uses of intonation, many textbooks seem to actively discourage a communicative focus. Far too much intonation practice in pronunciation textbooks occurs in single, isolated sentences, as in the exercise in Figure 1. This all-too-common exercise consists simply of intonation pattern practice (see also Dale & Poms, 1994, p. 249; Dauer, 1993, p. 227; Grant, 1993, p. 123; Hagen & Grogan, 1992, p. 129; Lane, 1997, p. 139). This kind of practice, which is equally common for statements and yes-no questions, is no doubt necessary at times but should at least be tied to a larger context. However, in Figure 1, the sentences are unrelated to each other or any context. The goal is to produce sentences with a particular pitch pattern, with meaningful or communicative use assumed to occur somewhere outside the classroom. Although questions such as those in Figure 1 are among the most useful structures for interaction, their interactive possibilities are usually forgotten in favor of practicing a prescribed intonation pattern.

Textbooks should provide practice with variations in intonation as a communicative tool. As Pirt (1990) expresses it, “Learners need to be made aware of the communicative value of intonation rather than merely its physical characteristics. They then need . . . a chance to use
intonation interactively, and not simply to repeat it” (p. 155). Thus intonation should always be taught in a context because its contribution to meaning cannot be properly defined or learned in any other way.

Even the use of context, however, does not completely address a more fundamental issue, communicative use. A case in point is that of tag questions, whose intonational variants are frequently found in both pronunciation textbooks and textbooks on other skills. Despite an evenhanded treatment of the tag question in relation to intonation, textbooks do not begin to treat the communicative use of the structure. After a few exercises to practice the intonation and perhaps structure of the tags, tag questions are abandoned with no discussion of the situations in which native speakers use such questions and situations in which the tags are not appropriate.

In one textbook, for example, international teaching assistants (ITAs) are told that “question tags use rising intonation to request confirmation or denial of a statement that the speaker thinks is true [and] use falling intonation to ask the listener to agree with the speaker about the truth of the statement” (Smith, Meyers, & Burkhalter, 1992, pp. 100–101). Although tag questions likely serve important purposes in the classroom environment, ITAs are told neither why they would use a tag question instead of a more common inverted question nor what kind of difference the tag implies by its more direct, intimate feel. For example, imagine a situation in which a student comes in to talk to an ITA about math problems that she does not understand. After working through several problems, the ITA begins to realize just how hard the problems are for the student. Of the four questions in Example 14, only the tag with the
affirmative stem and falling intonation is appropriate. The other three (preceded by a question mark) are rather insulting, although the standard yes-no question with rising intonation could also be understood as sympathetic.

14. Student: Oh, I’m just not getting these problems.

ITA: This is really hard for you, isn’t it?

? This isn’t really hard for you, is it?

? Is this really hard for you?

? This is really hard for you?

Clearly, teaching the intonation of these structures is not enough. Even if students can produce the intonational contrasts perfectly and form the structures correctly, teaching the pragmatics of the structures is essential. Teachers have failed if they tell students how to pronounce something that the students do not have the sociolinguistic competence to use.

ANOTHER APPROACH TO TEACHING INTONATION

Many of the problems in textbook treatments of intonation can be resolved or greatly lessened by thinking differently about the uses of intonation and the needs and abilities of learners. The four principles offered in this section, if followed, will result in materials with a more appropriate pedagogical approach that is markedly different from that which currently dominates North American textbooks.

Principle 1: Teach Intonation in an Explicit Context

Intonation carries communicative value only in particular contexts, and the communicative value of a particular contour often changes dramatically, not only with a change in grammatical structure but also with a change of conversational context. This is evident both in nuclear stress and in final intonation.

Textbook presentations of the meaning of nuclear stress, for example, inadequately address the role of context. A common exercise, the use of a single sentence with the nuclear stress shifted to different words (Figure 2; see also Hagen & Grogan, 1992, p. 135; Orion, 1996, p. 68), ostensibly shows how the (potential) meaning changes with different nuclear stress placements. Native speakers usually accept this kind of
exercise readily, but it assumes much that is not obvious to a learner. First, not all the sentences are appropriate to begin a conversation, and most are strongly constrained. Sentence 5, for example, can only be heard in response to a previous (likely extended) denial of George’s moving, as in Example 15.

15. A: Hey, did you know that George is moving to Toronto?
   B: No way! He just bought a house here.
   A: He told me this morning that he was going next month.
   B: Is this an April Fool’s joke or something? He isn’t moving next month.
   A: Why won’t you believe me? George IS moving to Toronto next month.

Although the nuclear stress placement makes sense only in a certain context, the sentences in Figure 2 suggest to learners that they can freely change the meaning of an utterance by changing the nuclear stress and that, depending on what they mean, any nuclear stress placement is as good as the next. This view is sometimes encouraged by textbook writers, for example, “sentence stress can be moved to any word in the sentence that you want to call attention to or emphasize for any reason” (Dauer, 1993, p. 230). However, beginning a conversation with such a nuclear stress would likely be met with a response more like the one in Example 16 and by a hearer’s questioning the speaker’s state of mind.

16. A: George IS moving to Toronto next month.
   B: Nobody ever said he wasn’t. What are you talking about?

In addition, it is difficult to come up with appropriate contexts for sentences like No. 6 in Figure 2, primarily because sentences with such a

![FIGURE 2](image)

Exercise on Shifts in Nuclear Stress (Dauer, 1993, p. 230)

Listen to your teacher or classmate and identify which sentence you hear.

George is moving to Toronto next month. (not some other time)
George is moving to Toronto next month. (not some other month)
George is moving to Toronto next month. (neutral; not some other city)
George is moving to Toronto next month. (not just going there)
George is moving to Toronto next month. (he really is)
George is moving to Toronto next month. (not someone else)

nuclear stress will most likely be elliptical; that is, the old information will not be consistently repeated.

17. A: Hey, did you know that George is moving to Toronto next month?
   B: I think you heard wrong. JIM is moving to Toronto next month.
   A: No, I’m sure of it. GEORGE is (moving to Toronto next month).

Even more innovative exercises can fall into the same trap. The exercise in Figure 3 attempts to link nuclear stress placement and meaning by focusing on contrasting meanings for two possible nuclear stress placements. In my pronunciation classes, I ask students to write dialogues in which the different nuclear stresses would be appropriate. This exercise usually proves to be valuable because, even in this relatively easy context, advanced university students find the task very difficult, as they do not have ready access to the knowledge of a native speaker of English. A dialogue for one of the nuclear stress placements in No. 1 in Figure 3 is given in Example 18 (contrasted words are in italics).

**FIGURE 3**
Exercise for Teaching the Meaning of Nuclear Stress

Listen for the special focus word in each statement. Check the most likely meaning.

1. Make that a medium pepperoni pizza.
   _____ Not a large.
   _____ Not a sausage.

2. I sprained my ankle playing soccer.
   _____ Not my wrist.
   _____ I didn’t break it.

*Note.* From Grant (1993, pp. 119–120).

18. A: May I help you?
   B: Yeah . . . I’d like a *large* pepperoni, an order of bread sticks, and three *large* cokes.
   A: OK, that’s a *large* pepperoni, one order of bread sticks, and three *large* cokes. Will there be anything else?
   B: No, thanks. Wait a minute, you’d better make that a *MEDium* pepperoni pizza.
   A: [etc.]
It is very difficult, however, to come up with a dialogue for No. 2 in Figure 3 in which “not my wrist” is an appropriate answer. The nuclear stress on ankle does not mean “not my wrist” but means rather “not [any other part of the body likely to be hurt playing soccer].” Just as in No. 1, the meanings given by this exercise appear to be more specific than they really are. “Make that a MEDIUM pepperoni pizza” does not mean “not a large.” It means that the speaker is changing the membership of a previously announced category, that of size. Gilbert (1993) uses this more general approach by including more than one equally possible meaning of nonneutral nuclear stress placement; for example, Let’s do it on TUESDAY morning could mean not Wednesday as well as not Monday or any other day of the week. Teachers should not assume that their students will be able to understand and use nuclear stress without an explicit reference to the factors that help determine such placement.

Principle 2: Make Learnable and Generalizable Statements About Meaning

A basic belief of researchers is that intonation makes an independent contribution to the meaning of utterances. This assertion alone makes intonation an extraordinarily important part of oral communication. However, it is also clear that descriptions of intonational meaning in terms of attitude or with specific labels, such as boredom, excitement, surprise, and anger, cannot easily be generalized to new sentences. Thus, an intonation that sounds “bored” in one sentence, for instance, may sound “level-headed” in another, “angry” in another, and “interested” in yet another.

This state of affairs leaves teachers in a quandary. If intonation contributes meaning to what is said, then students should be given information about these meanings. However, if meaning cannot be generalized to other sentences, then it is nearly impossible to give students useful rules about meaning. This difficulty can be illustrated by a sampling of statements about meaning from a recent textbook.

Information questions normally ask for particular types of information and are said with a fall. If you rise sharply on them, it adds the meaning, “Please repeat what you just said. I didn’t hear you well and I’m checking to see if I understood you correctly. Is this what you said?” . . . . In informal English, a rise can change a statement into a question with no change in word order. It adds the meaning: “Really? I didn’t know that. I’m surprised.” . . . . The low fall may show boredom, unfriendliness, or even anger, especially on an information question. It is used on strong commands by people of superior rank to those of inferior rank . . . . The rise-fall can show that the speaker is
really impressed, strongly affected emotionally, or surprised, and is often used for exclamations. Although the rise-fall can make a speaker sound really interested and enthusiastic, it can very easily sound insincere or negative. Non-native speakers should avoid using the rise-fall unless they are certain they are using it properly . . . . Non-native speakers will sound very indecisive, hesitant, and unsure of themselves if they don’t use a clear rise or fall at the end of intonation groups. In our culture, non-finality is perceived as a weakness in men. (Dauer, 1993, pp. 234–236)

Although almost every one of these statements can be traced to research on the emotional-attitudinal effect of changes in intonation, the overwhelming collection of meanings and functions should give any teacher pause. It is unlikely that students can internalize such semantic variety and, indeed, that they need to do so. Instead, several guidelines can help make intonational meaning learnable:

1. Because intonation interacts with many other factors that affect how a listener understands an utterance, teachers should describe intonational meaning very generally and show more specific meanings by presenting them in particular contexts.

2. Teachers should focus more on what intonation does in a conversation than on what its affective meaning is. Rather than using intonation to convey a specific state of mind, like boredom, speakers use intonation to manage and construct conversations by taking turns and keeping the floor, defining speakers’ roles, and negotiating meaning (Dalton & Seidlhofer, 1994). These functions of intonation are largely excluded in an approach that emphasizes affective meaning, but they fit well in an approach that sees intonational meaning as a tool to achieve communicative goals.

3. To be fair to students, teachers should never use affective meanings that depend on native speakers’ intuitions. Overly precise meanings such as surprise or anger are rarely conveyed by intonation alone. Even overtly emotional utterances are frequently the result of both extra-high pitch on the nuclear stress and an emotion-laden word, as in the following example.

That’s terrible! (Prator & Robinett, 1985, p. 78)

Principle 3: Teach Intonation in the Context of a Communicative Purpose

The primary reason to teach intonation should be to highlight its use in communication, not simply to teach the intonation pattern. In other words, intonation should not be the only or even the central reason for
the instruction. Paradoxically, intonation can be central in language teaching only if it is subordinate to communicative uses of language.

Typical pronunciation textbooks teach intonation in much the same way that they teach consonants and vowels. Exercises for listening come first, both to hear individual patterns and to distinguish them from each other, followed by descriptions of the common patterns and sentence-level practice with each pattern. Following this, intonation may be practiced in dyads and dialogues. There are always predictive rules for normal contours for each grammatical form and perhaps a very few exercises meant to allow slightly more communicative practice. Actual usage is assumed to occur outside the classroom, as in this comment about tag questions:

The fall is more demanding and allows little disagreement; the rise is more doubtful and allows . . . much more possibility to disagree. In actual conversation, tag questions can be confusing even for native speakers. Often they are not answered directly. (Dauer, 1993, p. 239)

Similar statements can be found in most other pronunciation texts (see Chan, 1987, pp. 58–59; Hagen & Grogan, 1992, p. 140; Orion, 1996, p. 65) as well as in grammar and communicatively oriented speaking texts. The descriptions, which are accurate as far as they go, unfortunately do little to address a more fundamental question: why and in what situations a student should use a tag question with either a negative or an affirmative tag.

Explicitly joining intonation and communicative uses of language would greatly change the way intonation is taught. For pronunciation textbooks, it would result in a connection between intonation and specific communicative uses to which the intonation clearly contributes. For oral communication textbooks, intonation would have an explicit role in the syllabus, as it contributes to an overall ability to communicate.

Recent publications indicate progress in teaching intonation communicatively. Celce-Murcia et al. (1996) provide a large number of exercises for teaching intonation in context, whereas 10 years earlier Celce-Murcia (1987) complained that the major failing of her attempts to teach pronunciation communicatively was that she was unable to incorporate stress and intonation into her communicative framework. Several modern pronunciation textbooks are strongly communicative (e.g., Beisbier, 1995; Grant, 1993) and attempt to consistently teach segmentals and suprasegmentals through nonmechanical exercises. However, the value of many textbook exercises for intonation is strongly limited by their failure to address intonation as part of a larger communicative purpose.
Principle 4: Teach Intonation With Realistic Language

Principle 4 is closely related to Principle 3. One of the most common oddities of language teaching textbooks is the insistence that students speak in complete sentences rather than use genuine language, which often consists of elliptical utterances. Nowhere does this seem more common than in teaching intonation.

To illustrate how nuclear stress is sensitive to preceding information, for example, textbooks may use exercises similar to that in Figure 4. It is highly unlikely that the answers to the questions would differ only in nuclear stress. Only Question 1 could appropriately be answered with the full statement. The answers to the rest would naturally consist of only the essential words (e.g., “MINE” for Question 2, “My NEW one” for Question 3, and “No, it’s MINE” for Question 4). Dauer (1993) says that “if the old information is repeated, it will not receive sentence stress . . . the same meaning can also be expressed by using auxiliaries, omitting the old information, reordering the sentence, or using pronouns” (p. 231). Crystal (1969), in an analysis of naturally occurring conversation, found that over 90% of all utterances had a nuclear stress on the last content word (noun, verb, adjective, adverb). This high percentage likely comes from the fact that the utterances in natural conversation are not completely formed sentences but are frequently elliptical, not repeating information that is recoverable from the context (Gunter, 1963).

Exercises like the one in Figure 4 only make proper nuclear stress placement more difficult for students, who by and large cannot deaccent many syllables after the nuclear stress. However, they should not have to. The answer to Question 5 in Figure 4, for example, would require that all the syllables after that be deaccented. Native speakers of English, however, are unlikely to repeat all this old information, merely answering “THAT is” or “THAT one.” Starting with a primary goal of communicative proficiency rather than of teaching the mechanics of intonation will mean that exercises containing unnatural language are less likely to haunt the pages of ESL textbooks.

CONCLUSION

Intonation carries meaning, highlights important information while backgrounding less crucial information, and plays a significant role in conversational management. The way intonation is taught in North American ESL textbooks, however, shows little evidence of what is known about how intonation functions in communication.
Over a quarter of a century ago, Allen (1971) described a problem that is still common today: Little of what is taught of intonation in the classroom makes it into real life. Although language teaching and intonational research have progressed tremendously since the time of her remarks, the teaching of intonation is still largely trapped in another era, in which its communicative power is shackled by outdated descriptions and teaching practices that comfortably exist in the absence of communicative purpose.

The abundance of creative teaching exercises in resource books has had little power against the entrenched beliefs that students can learn intonation without clear and consistent practice in communication. Change in the approach to teaching intonation will come not with better exercises alone but with a change in thinking. Unless teachers and textbooks change their expectations about how intonation should be taught, most students will not carry over what they learn to spontaneous speech, will not understand how English intonation communicates meaning and controls interaction without practice, and will continue to speak without effectively using one of their strongest aids to intelligibility. Intonation can take its rightful place as part of a communicative approach to language teaching only if its communicative value is made obvious and if it is used for communication rather than pattern practice.

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